

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of: ) Confirmation No.: 4289  
Marcel NAAS )  
Application No. 10/828,497 ) Examiner: Shahid R. Merchant  
Filed: April 21, 2004 ) Group Art Unit: 3694  
For: **CONTROLLING RESOURCE** ) Date: March 17, 2010  
**GROUP TRANSFERS FOR REPO** )  
**BASKET TRANSACTION SYSTEMS** )

**APPEAL BRIEF**

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 35 U.S.C. § 134 and 37 C.F.R. § 41.37, Appellants submit the following Appeal Brief in support of the appeal proceedings instituted by a Notice of Appeal filed on **December 18, 2009**, and in response to the Final Office Action mailed October 23, 2009 and the Advisory Action mailed February 5, 2010, in connection with the above-captioned patent application.

**I. STATEMENT OF THE REAL PARTY IN INTEREST**

Deutche Borse AG is the assignee and real party in interest.

**II. RELATED APPEALS AND INTERFERENCES**

There are presently no appeals or interferences known to the Appellant, the Appellant's representative, or the Assignee, which will directly affect or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

For the purposes of this Appeal:

Claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32 are pending.

Claims 33-38, 40-58, and 60-73 are withdrawn.

Claims 2, 7, 12, 18, 23, 28, 39, and 59 are cancelled.

Claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32 stand rejected.

This Appeal is taken from the rejection of claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32, as set forth in the Claims Appendix submitted herewith.

**IV. STATUS OF AMENDMENTS**

Amendments have been entered subsequent to the Final Office Action.

Appellant submitted amendments to independent claim 17 in the Amendment After Final filed January 27, 2010. The amendments were submitted in accordance with the provisions of 37 C.F.R. § 1.116, which after Final Rejection permits entry of amendments placing the claims in better form for consideration on appeal. The Examiner indicated in the Advisory Action mailed February 5, 2010 that, for the purposes of appeal, the proposed amendments will be entered.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

This Appeal is taken from the rejection of claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32. Claims 1, 16, 17, and 32 are independent claims. The invention relates to repo basket transaction systems and methods, and more generally, to systems which are defined in

association with a condition under which, after the resource group transfer has been completed, a reverse transfer of the same or a similar group of resources has to occur (*see, Appellant's original Specification (hereinafter "Specification"), p. 1, ll. 7-11.*)

Independent claim 1 recites a repo basket transaction system (*see, Specification p. 7, l. 5*), the system comprising a trading system connected to receive repo quotes from market participants, the repo quotes specifying a repo basket transaction and including a security basket definition including at least one set of securities (*see, Specification p. 7, ll. 6-9*) defining a synthetic security, said security basket definition not indicating specific securities (*see, Specification p. 10, ll. 11-14, and Figure 7*); a clearing system connected to said trading system and wherein said clearing system is configured to generate settlement instructions relating to repo basket transactions that correspond to the security basket definition, the settlement instructions being based on a negotiation of a repo transaction resulting from the repo quotes (*see, Specification p. 25, ll. 9-13*); and a settlement system connected to said clearing system to receive settlement instructions relating to repo basket transactions, wherein said settlement system comprises a securities pooling and allocation unit adapted to allocate at least one specific security that meets the security basket definition (*see, Specification p. 7, ll. 10-14*), said settlement system also completing the repo transaction by posting the allocated specific securities on sub-ledger (*see, Specification p. 12, ll. 22-29*) securities and cash accounts (*see, Specification p. 4, ll. 8-14*).

Independent claim 16 recites a settlement system capable of being operated in a repo basket transaction system, (*see, Specification p. 7, ll. 15-16*) connected to receive settlement instructions relating to repo basket transactions and to receive a security basket definition indicating at least one class of securities (*see, Specification p. 7, ll. 16-19*) defining a synthetic security, said security basket definition not including specific securities (*see, Specification p. 10, ll. 11-14, and Figure 7*), comprising a securities pooling and allocation unit (*see, Specification p. 7, ll. 19-20*) which, in response to settlement instructions for the synthetic security (*see, Specification p. 11, l. 27, through p. 12, l. 3*), allocates at least one specific security that meets the security basket definition (*see, Specification p. 7, ll. 22-23*).

Independent claim 17 recites a computerized repo basket transaction method comprising receiving repo quotes from market participants (*see, Specification p. 7, ll. 24-25*) in an electronic

trading system by operating computer devices (*see*, Specification p. 11, ll. 18-25), the repo quotes specifying a repo basket transaction and including a security basket definition indicating at least one class of securities (*see*, Specification p. 7, ll. 25-27) defining a synthetic security, said security basket definition not indicating specific securities (*see*, Specification p. 10, ll. 11-14, and Figure 7); negotiating a repo transaction in said electronic trading system based on the repo quotes (*see*, Specification p. 4, ll. 15-25); generating settlement instructions in a clearing system for the synthetic security based on said negotiating step (*see*, Specification p. 13, ll. 19-24); and in response to the settlement instructions, allocating in a settlement system at least one specific security that meets the security basket definition (*see*, Specification p. 7, l. 27, through p. 8, l. 2); and completing in said settlement system the repo transaction by posting said allocated specific securities on sub-ledger and securities and cash accounts (*see*, Specification p. 14, ll. 19-26).

Independent claim 32 recites a computer readable storage medium storing instructions that, when executed on a computer system (*see*, Specification p. 29, ll. 5-6), cause the computer system to receive repo quotes from market participants, the repo quotes specifying a repo basket transaction and including a security basket definition (*see*, Specification p. 7, ll. 27-29) indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities (*see*, Specification p. 10, ll. 11-14, and Figure 7); and in response to settlement instructions based on negotiation of repo quotes, allocate at least one specific security that meets the security basket definition (*see*, Specification p. 7, l. 27, through p. 8, l. 2).

Support for the dependent claims may be found in the above referenced portions of Appellant's application and throughout the application.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to be reviewed on appeal are as follows.

- A. The rejection of claims 17, 19-22, 24-27 and 29-31 under 35 U.S.C. § 101 as claiming non-statutory subject matter.
- B. The rejection of claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Eurex, as evidenced by "The Benchmark in

Electronic Repo Trading" (*see*, PTO-892, Ref. U), "About Eurex, Corporate Profile" (*see*, PTO-892, Ref. V), "Eurex Launches Swiss Equity-Repo Trading" (*see*, PTO-892, Ref. W), "Eurex Clearing AG, Extension of Services" (*see*, PTO-892, Ref. X), and "Eurex Handbook, Life of a Repo Trade" (*see*, PTO-892, Ref. Y) in view of Tri-Party Repo Back in the Spotlight by Brian Bollen (*see*, PTO-892, Ref. BB) (hereinafter "Bollen").

## **VII. ARGUMENT**

### **A. The Rejection of Claim 17, 19-22, 24-27 and 29-31 as Reciting Non-Statutory Subject Matter under 35 U.S.C. § 101 Should be REVERSED.**

In the Final Office Action, claims 17, 19-22, 24-27 and 29-31 stood rejected under 35 U.S.C. § 101. The Final Office Action explained that "[b]ased on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to a machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing." (*see*, Final Office Action mailed October 23, 2009, item 6, citations omitted). The Examiner asserted that Appellant's method steps fail the first prong of the new Federal Circuit decision since they are not tied to a machine and can be performed without the use of a particular machine. Thus, the Office Action asserted that claims 17, 19-22, 24-27 and 29-31 stood rejected as non-statutory. To place the claims in better form for consideration on appeal, Appellant amended claim 17 according to the Examiner's suggestion provided during the discussion between the Examiner and Appellant's Attorneys on January 4, 2010. Claim 17, as amended, recites a method tied to a particular machine. Thus claim 17 recites only statutory subject matter under 35 U.S.C. § 101 and the present rejection of claim 17 as well as claims that depend therefrom should be reversed.

#### **1. The Machine-or-Transformation Test for Subject Matter under 35 U.S.C. § 101**

A method claim, to be statutory under § 101, must pass the machine-or-transformation test (M-or-T test), which ensures that the process is limited to a particular practical application (*see, In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (*en banc*)). The test ensures that the process is

not simply claiming an abstract idea, a mental process or substantially all practical uses of (preempting) a law of nature or a natural phenomenon. When a machine tie has been identified, it must be further determined that the tie is to a particular machine. A “machine” comprises a concrete thing broadly interpreted to include electrical, electronic, optical, acoustic, and other devices that accomplish a function to achieve a certain result. The PTO Interim Subject Matter Guidelines set forth:

For computer implemented processes, the “machine” is often disclosed as a general purpose computer. In these cases, the general purpose computer may be sufficiently “particular” when programmed to perform the process steps. Such programming creates a new machine because a general purpose computer, in effect, becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software. To qualify as a particular machine under the test, the claim must clearly convey that the computer is programmed to perform the steps of the method because such programming, in effect, creates a special purpose computer limited to the use of the particularly claimed combination of elements (i.e., the programmed instructions) performing the particularly claimed combination of functions.

*(Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101, August 24, 2009; p. 6).*

**2. Amended Claim 17 Fully Satisfies the Machine Branch of the M-or-T Test**

In Appellant’s Amendment After Final filed January 27, 2010, Appellant amended claim 17 to clarify that each feature of the claim is carried out “in an electronic trading system by operating computer devices”, “in said electronic trading system”, “in a clearing system”, “in a settlement system”, and “in said settlement system”. Support for the amendments may be found throughout the specification, by way of example on line 20 of page 11. No new matter has been added by this amendment. Thus, independent claim 17, as amended, recites a method tied to a particular machine. Because the claimed method is tied to a particular machine, the M-or-T test is satisfied. Thus, independent claim 17 recites only patent eligible subject matter and fully satisfies the requirements of 35 U.S.C. § 101.

**3. Claims 19-22, 24-27 and 29-31 Fully Satisfy the Machine Branch of the M-or-T Test**

Dependent claims 19-22, 24-27 and 29-31 depend from independent claim 17 and claim additional features of embodiments of Appellant's invention. At least by virtue of these claims' dependence upon claim 17, which recites a method tied to a particular machine, each of claims 19-22, 24-27 and 29-31 are tied to a particular machine. Thus, each of claims 19-22, 24-27 and 29-31 recite patent eligible subject matter and fully satisfy the requirements of 35 U.S.C. § 101.

#### 4. Conclusions

For at least the foregoing reasons, the rejection of claims 17, 19-22, 24-27 and 29-31 as reciting non-statutory subject matter under 35 U.S.C. § 101 should be REVERSED.

#### **B. The Rejection of Claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32 under 35 U.S.C. § 103(a) as Being Unpatentable over Eurex in view of Bollen Should be REVERSED.**

Claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Eurex in view of Bollen as indicated on page 5 of the Final Office Action mailed October 23, 2009 and maintained in the Advisory Action mailed February 5, 2010. Appellant appeals this rejection and requests reversal because neither Eurex nor Bollen, taken alone or in combination, render obvious to a person having ordinary skill in the art each feature of the claims. Thus, Eurex, in view of Bollen, fails to render obvious the claimed invention under 35 U.S.C. § 103(a).

##### 1. The Prior Art

###### a. The Eurex References (Refs. U-Y)

The Eurex references comprise high-level articles and press releases describing features of various electronic services. Eurex generally describes a repo trading system with a repo basket and a settlement system (*see*, Refs. U and X). While Eurex arguably describes the field of electronic repo trading, the Examiner admits on page 6 of the Non-Final Office Action, mailed May 4, 2009, that "Eurex does not explicitly teach defining a synthetic security, said security basket definition not indicating specific securities."

b. The Bollen Reference (Ref. BB)

The Bollen reference is an article generally discussing the increase in popularity of the tri-party repo in Europe. Bollen discusses at a high level the capabilities of agents such as “Euroclear” and “Clearstream” (see, page 2, ¶ 4 of Ref. BB). While Bollen generally omits details of the capabilities of Euroclear and Clearstream, the reference explains that “thanks to their auto-select capabilities, *Euroclear and Clearstream will select the securities to collateralize any borrowing*, using smaller pieces of spare collateral that would otherwise lie unused.” (see, page 2, ¶ 6 of Ref. BB, emphasis added). Thus, Bollen generally refers to agents that do not require *users* to identify specific securities in bulk collateral. A detailed reading of Bollen in its entirety reveals that, while *users* may not be required to identify specific securities, the *systems implemented by the agents* (e.g. Euroclear and Clearstream) operate with the securities *individually* (see, page 2, ¶ 6 of Ref. BB). In other words, the system automatically selects specific securities, apparently before settlement instructions are generated.

2. Summary of the Rejections Set Forth in the Final Office Action and the Advisory Action

As discussed above with reference to the Eurex references, the Examiner admits that “Eurex does not explicitly teach defining a synthetic security, said security basket definition not indicating specific securities” (see, p. 6 of the Final Office Action). The Examiner, however, goes on to broadly state that “Bollen teaches defining a synthetic security, said security basket definition not indicating specific securities (see PTO-892, Ref. BB, page 3)” (see, *Id.*). Based on that assertion, the Examiner summarily concludes that,

Therefore, it would be *prima facie* obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Eurex and Bollen to define a synthetic security that does not indicate specific securities because it allows one to “move a large bulk of collateral around without huge-in house infrastructure costs” as taught by Bollen (see PTO-892, Ref. BB, page 3).

In the Advisory Action, the Examiner maintains his assertion that Bollen teaches a “security basket definition not indicating specific securities”. The Examiner explains that,

Regarding the phrase, “selecting the securities”, Bollen does not reveal any specific securities that are going to be chosen. The auto-select capability *simply implies that securities will be chosen and used for collateralization.*

(*see*, Advisory Action, item 11, emphasis added). The Examiner’s own explanation of Bollen concedes that the auto-select capability *implies that securities will be chosen*. The Examiner, however, has not indicated, and Bollen is silent with respect to, when the securities are chosen.

**3. Eurex and Bollen, both Alone and in Combination, Fail to Disclose, Suggest, or Otherwise Render Obvious the Features Recited in Claim 1.**

Appellant’s independent claim 1 recites the feature “a security basket definition indicating one class of securities defining a synthetic security, said security basket definition not indicating specific securities”. Claim 1 further recites “a clearing system connected to said trading system and wherein said clearing system is configured *to generate settlement instructions relating to repo basket transactions that correspond to the security basket definition*” (emphasis added). Thus, the claimed settlement instructions (part of the clearing process) are generated based on the synthetic security, not specific securities.

Further, claim 1 recites “a settlement system connected to said clearing system *to receive settlement instructions* relating to repo basket transactions, wherein said settlement system comprises a securities pooling and allocation unit adapted to allocate at least one specific security that meets the security basket definition”. In other words, the settlement system receives settlement instructions that do not correspond to specific securities, but rather only to a class of securities. *After receipt of these settlement instructions*, the settlement system allocates at least one specific security that meets the security basket definition.

As discussed above, Eurex, fails to disclose these claimed features. Indeed, the Examiner concedes this fact.

Additionally, Bollen fails to cure the deficiencies of Eurex. In contrast to Appellant’s claimed feature, while the *users* of Bollen are not required to identify specific securities, the *system* still operates with the securities *individually*. Bollen recites, in relevant part,

“Tri-party provides the backbone to a good deal of collateral management activity,” says James Tomkinson, director of repo products at Nomura in London. “It sits in the middle of the treasury function, whether you’re looking to give or

receive cash. There are a lot of advantages to it, one of the biggest of which is that you don't have to move a large bulk of collateral around without huge in-house infrastructure costs. *You don't even have to issue specific instructions; thanks to their auto-select capabilities, Euroclear and Clearstream will select the securities to collateralize any borrowing*, using smaller pieces of spare collateral that would otherwise lie unused. That's a clear and obvious advantage to us, although it does in turn create one inefficiency in that we don't know which securities are being used. We don't find out until the next day what our positions are. That is something of an ordeal. It is very difficult to allocate costs when you find out only retrospectively what collateral is being allocated to whom."

(*see*, Ref. BB, p. 3, emphasis added). A detailed reading of Bollen reveals that even though from the user's perspective the specific securities are hidden, the operation of Euroclear and Clearstream involve their "select[ing] the securities". Bollen fails to disclose "a clearing system connected to said trading system and *wherein the clearing system is configured to generate settlement instructions relating to repo basket transactions that correspond to the security basket definition*" (emphasis added). Indeed, nowhere does Bollen even hint at generating settlement instructions that correspond to a security basket definition, the security basket definition indicating at least one class of securities defining a synthetic security, the security basket not indicating specific securities.

Further, Bollen fails to disclose "a settlement system connected to said clearing system to receive settlement instructions relating to repo basket transactions, wherein said settlement system comprises a securities pooling and allocation unit *adapted to allocate at least one specific security that meets the security basket definition*" (emphasis added). Appellant's recited settlement system receives instructions that indicate only a class of securities, not specific securities. Because settlement instructions are a prerequisite for settlement, only *after receipt of these instructions* will the securities pooling and allocation unit allocate at least one specific security that meets the security basket definition. Bollen simply fails to suggest this feature of Appellant's claimed invention as well.

For at least the reason that Bollen fails to disclose these features of Appellant's claimed invention, Bollen fails to cure the deficiencies of the primary reference Eurex.

Moreover, the Advisory Action recites,

Applicant argues on page 16 that Eurex and Bollen do not teach or disclose "a group definition then allows...common resource." In response to applicant's

argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a group definition then allows...common resources) are not recited in the rejected claims(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

(citation omitted). However, while Appellant's claims do not specifically recite this benefit provided by the claimed features, the prior art of record fails to teach, suggest, or otherwise render obvious the claimed features discussed above. Appellant presents the unclaimed advantages as further evidence of nonobviousness.

In a 35 U.S.C. § 103 analysis, ascertaining the differences between the prior art and the claims at issue requires interpreting the claim language, and considering both the invention and the prior art references as a whole (*see, MPEP 2141.02*). "In determining whether the invention as a whole would have been obvious under 35 U.S.C. 103, we must first delineate the invention as a whole. In delineating the invention as a whole, we look not only to the subject matter which is literally recited in the claim in question... but also to those properties of the subject matter which are inherent in the subject matter *and* are disclosed in the specification. . . Just as we look to a chemical and its properties when we examine the obviousness of a composition of matter claim, it is this invention *as a whole*, and not some part of it, which must be obvious under 35 U.S.C. 103." *In re Antonie*, 559 F.2d 618, 620, 195 USPQ 6,8 (CCPA 1977) (emphasis in original) (citations omitted) and MPEP 2141.02.

Appellant's invention considered as a whole, including those inherent properties of the claimed subject matter disclosed in Appellant's specification, further evidences inventiveness over the prior art of record. Appellant's claimed clearing process corresponding to unspecified securities provides distinct advantages over the prior art of record. As described in page 10, lines 11-19, of Appellant's specification,

That is, the group is not specified by defining the individual resources. This group definition then allows for processing the group as single 'synthetic' resource in much the same way as a common resource.

According to the embodiments, a central resource specification unit investigates the definition and allocates individual resources for the transfer that meet the class definition. Thus, the resource allocation is no longer be done decentralized in the various transfer instructions, but by a central entity in the course of processing the defined groups.

For at least the reason that the prior art of record neither discloses each of the features of Appellant's invention recited in claim 1 nor even contemplates the advantages provided by Appellant's claimed features, Appellant's claimed invention is nonobvious over the prior art of record. Only impermissible hindsight reasoning, gleaned from Appellant's own disclosure, would allow one of ordinary skill in the art to modify the prior art of record to arrive at Appellant's claimed invention. For at least the foregoing reasons, the rejection of independent claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Eurex in view of Bollen should be REVERSED.

4. Eurex and Bollen, both Alone and in Combination, Fail to Disclose, Suggest, or Otherwise Render Obvious the Features Recited in Claims 16.

Appellant's independent claim 16 recites the features "a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities" and "a securities pooling and allocation unit which, *in response to settlement instructions for the synthetic security*, allocates at least one specific security that meets the security basket definition" (emphasis added). In other words, the settlement system receives settlement instructions that do not indicate specific securities, but rather only indicate a class of securities. Only in response to, i.e. after receiving, these settlement instructions does the settlement system allocate at least one specific security that meets the security basket definition. As discussed above with reference to claim 1, Eurex and Bollen, both alone and in combination, fail to teach, suggest, or otherwise render obvious these claim features. Only impermissible hindsight reasoning, gleaned from Appellant's own disclosure, would allow one of ordinary skill in the art to modify the prior art of record to arrive at Appellant's claimed invention. For at least the foregoing reasons, the rejection of independent claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Eurex in view of Bollen should be REVERSED.

5. Eurex and Bollen, both Alone and in Combination, Fail to Disclose, Suggest, or Otherwise Render Obvious the Features Recited in Claims 17.

Appellant's independent claim 17 recites the feature "a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities". Claim 17 further recites "*generating instructions in a clearing system* for the synthetic security" (emphasis added). Thus, the claimed clearing system is based on the synthetic security, not specific securities. Additionally, the generated settlement instructions do not indicate specific securities, but rather only a class of securities.

Further, claim 17 recites "*in response to the settlement instructions*, allocating in a settlement system at least one specific security that meets the security basket definition" (emphasis added). In other words, the settlement system receives settlement instructions that do not indicate specific securities, but rather only indicate a class of securities. Only after receipt of these settlement instructions does the settlement system allocate at least one specific security that meets the security basket definition.

As discussed above with reference to claim 1, Eurex and Bollen, both alone and in combination, fail to teach, suggest, or otherwise render obvious these claim features. Only impermissible hindsight reasoning, gleaned from Appellant's own disclosure, would allow one of ordinary skill in the art to modify the prior art of record to arrive at Appellant's claimed invention. For at least the foregoing reasons, the rejection of independent claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Eurex in view of Bollen should be REVERSED.

6. Eurex and Bollen, both Alone and in Combination, Fail to Disclose, Suggest, or Otherwise Render Obvious the Features Recited in Claims 32.

Appellant's independent claim 32 recites the feature "repo quotes specifying a repo basket transaction and including a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities". Claim 32 further recites "*in response to settlement instructions based on negotiation of repo quotes*, allocates at least one specific security that meets the security basket definition" (emphasis added). Because the settlement instructions are based on negotiation of repo quotes,

the settlement instructions do not indicate specific securities, but rather only a class of securities. It is only in response to receiving these settlement instructions that allocation of at least one specific security takes place. Therefore, the computer system receives settlement instructions that do not indicate specific securities, but rather only indicate a class of securities. Only after receipt of these settlement instructions does the computer system allocate at least one specific security that meets the security basket definition.

As discussed above with reference to claim 1, Eurex and Bollen, both alone and in combination, fail to teach, suggest, or otherwise render obvious these claim features. Only impermissible hindsight reasoning, gleaned from Appellant's own disclosure, would allow one of ordinary skill in the art to modify the prior art of record to arrive at Appellant's claimed invention. For at least the foregoing reasons, the rejection of independent claim 32 under 35 U.S.C. § 103(a) as being unpatentable over Eurex in view of Bollen should be REVERSED.

7. Eurex and Bollen, both Alone and in Combination, Fail to Disclose, Suggest, or Render Obvious the Invention Recited in Dependent Claims 3-6, 8-11, 13-15, 19-22, 24-27, and 29-31

Regarding dependent claim 3, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 as set forth above, nor the invention recited in claim 3, which further recites "wherein said securities pooling and allocation unit further allocates said at least one specific security based on predefined rules."

Regarding dependent claim 4, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 3 as set forth above, nor the invention recited in claim 4, which further recites "wherein said predefined rules are standardized general settlement rules or market participant specific rules."

Regarding dependent claim 5, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 3 as set forth above, nor the invention recited in claim 5, which further recites "wherein said settlement system further comprises a storage for storing data indicating said at least one

specific security in association with data indicating said at least one class of securities, and said securities pooling and allocation unit further accesses said storage when allocating said at least one specific security based on said predefined rules.”

Regarding dependent claim 6, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 5 as set forth above, nor the invention recited in claim 6, which further recites “wherein said storage is arranged for storing said data in market participant specific memory regions, and said association is a market participant specific association.”

Regarding dependent claim 8, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 as set forth above, nor the invention recited in claim 8, which further recites “The repo basket transaction system of claim 1, wherein said clearing system is arranged for performing a trade margin calculation process based on a risk calculation based on said security basket definition.”

Regarding dependent claim 9, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 8 as set forth above, nor the invention recited in claim 9, which further recites “wherein said risk calculation process further accesses an individual average risk profile for each class of securities.”

Regarding dependent claim 10, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 8 as set forth above, nor the invention recited in claim 10, which further recites “wherein said clearing system is further arranged for sending repo confirmation messages to the trading system prior to said calculation.”

Regarding dependent claim 11, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 as set forth above, nor the invention recited in claim 11, which further recites “wherein said clearing system is arranged for determining whether the security basket amount exceeds a predefined threshold, and if so, generating plural settlement instructions each causing said settlement system to allocate amounts not exceeding said threshold.”

Regarding dependent claim 13, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 as set forth above, nor the invention recited in claim 13, which further recites “wherein said settlement system further creates a sub-ledger independent from general ledger accounts of the market participants and posts the at least one allocated specific security in said sub-ledger.”

Regarding dependent claim 14, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 13 as set forth above, nor the invention recited in claim 14, which further recites “further comprising an earmarking unit for marking the at least one allocated specific security to be posted in said sub-ledger but not in said general ledger accounts.

Regarding dependent claim 15, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 1 and dependent claim 14 as set forth above, nor the invention recited in claim 15, which further recites “wherein said earmarking unit first marks the at least one allocated specific security to be transferred from a first market participant's account to an account of a central counterpart, and then marks the at least one allocated specific security to be transferred from said account of a central counterpart to a second market participant's account.”

Regarding dependent claim 19, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 as set forth above, nor the invention recited in claim 19, which further recites “wherein said at least one specific security is allocated based on a security basket definition and predefined rules.”

Regarding dependent claim 20, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 and dependent claim 19 as set forth above, nor the invention recited in claim 20, which further recites “wherein said predefined rules are standardized general allocation rules.”

Regarding dependent claim 21, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 and dependent claim 19 as set forth above, nor the invention recited in claim 21, which further recites “further comprising: storing data indicating said at least one specific security in association with the

security basket definition indicating said at least one class of securities, wherein allocating said at least one specific security based on said predefined rules comprises accessing the stored data.”

Regarding dependent claim 22, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 and dependent claim 21 as set forth above, nor the invention recited in claim 22, which further recites “wherein said data is stored in market participant specific memory regions of a storage, and said association is a market participant specific association.”

Regarding dependent claim 24, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 as set forth above, nor the invention recited in claim 24, which further recites “further comprising: performing a trade margin calculation process based on a risk calculation based on said security basket definition.”

Regarding dependent claim 25, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 as set forth above, nor the invention recited in claim 25, which further recites “wherein said risk calculation process is adapted to access an specific average risk profile for each class of securities.”

Regarding dependent claim 26, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 and dependent claim 24 as set forth above, nor the invention recited in claim 26, which further recites “further comprising: sending repo confirmation messages from a clearing system to a trading system prior to said calculation.”

Regarding dependent claim 27, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 as set forth above, nor the invention recited in claim 27, which further recites “further comprising: determining whether the security basket amount exceeds a predefined threshold; and if so, generating plural settlement instructions each causing an allocation of amounts not exceeding said threshold.”

Regarding dependent claim 29, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 as set forth above, nor the invention recited in claim 29, which further recites “further comprising: creating a sub-ledger independent from general ledger accounts of the market participants; and wherein said completing step comprises posting the at least one allocated specific security in said sub-ledger.”

Regarding dependent claim 30, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 and dependent claim 29 as set forth above, nor the invention recited in claim 30, which further recites “further comprising: marking the at least one allocated specific security to be posted in said sub-ledger but not in said general ledger accounts.”

Regarding dependent claim 31, neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or render obvious the invention recited in independent claim 17 and dependent claim 30 as set forth above, nor the invention recited in claim 31, which further recites “wherein the marking is adapted to first mark the at least one allocated specific security to be transferred from a first market participant's account to an account of a central counterpart, and then mark the at least one allocated specific security to be transferred from said account of a central counterpart to a second market participant's account.”

For at least the forgoing reasons, Appellant submits that neither Eurex nor Bollen, taken alone or in combination, disclose, suggest, or otherwise render obvious the invention recited in dependent claims 3-6, 8-11, 13-15, 19-22, 24-27, and 29-31 under 35 U.S.C. § 103. Appellant respectfully requests the rejection of dependent claims 3-6, 8-11, 13-15, 19-22, 24-27, and 29-31 be REVERSED.

**VIII. CONCLUSION**

For at least the above reasons, pending claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32 are patentable. Accordingly, Appellants respectfully request this Honorable Board to reverse the rejections of claims 1, 3-6, 8-11, 13-17, 19-22, 24-27, and 29-32.

Respectfully submitted,

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## **IX. CLAIMS APPENDIX**

1. (Previously Presented) A repo basket transaction system comprising:
  - a trading system connected to receive repo quotes from market participants, the repo quotes specifying a repo basket transaction and including a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities;
  - a clearing system connected to said trading system and wherein said clearing system is configured to generate settlement instructions relating to repo basket transactions that correspond to the security basket definition, the settlement instructions being based on a negotiation of a repo transaction resulting from the repo quotes;
  - a settlement system connected to said clearing system to receive settlement instructions relating to repo basket transactions, wherein said settlement system comprises a securities pooling and allocation unit adapted to allocate at least one specific security that meets the security basket definition, said settlement system also completing the repo transaction by posting the allocated specific securities on sub-ledger securities and cash accounts.
2. (Cancelled)
3. (Previously Presented) The repo basket transaction system of claim 1, wherein said securities pooling and allocation unit further allocates said at least one specific security based on predefined rules.
4. (Original) The repo basket transaction system of claim 3, wherein said predefined rules are standardized general settlement rules or market participant specific rules.
5. (Previously Presented) The repo basket transaction system of claim 3, wherein said settlement system further comprises a storage for storing data indicating said at least one specific security in association with data indicating said at least one class of securities, and said

securities pooling and allocation unit further accesses said storage when allocating said at least one specific security based on said predefined rules.

6. (Original) The repo basket transaction system of claim 5, wherein said storage is arranged for storing said data in market participant specific memory regions, and said association is a market participant specific association.

7. (Cancelled)

8. (Previously Presented) The repo basket transaction system of claim 1, wherein said clearing system is arranged for performing a trade margin calculation process based on a risk calculation based on said security basket definition.

9. (Previously Presented) The repo basket transaction system of claim 8, wherein said risk calculation process further accesses an individual average risk profile for each class of securities.

10. (Original) The repo basket transaction system of claim 8, wherein said clearing system is further arranged for sending repo confirmation messages to the trading system prior to said calculation.

11. (Previously Presented) The repo basket transaction system of claim 1, wherein said clearing system is arranged for determining whether the security basket amount exceeds a predefined threshold, and if so, generating plural settlement instructions each causing said settlement system to allocate amounts not exceeding said threshold.

12. (Cancelled)

13. (Previously Presented) The repo basket transaction system of claim 1, wherein said settlement system further creates a sub-ledger independent from general ledger accounts of the market participants and posts the at least one allocated specific security in said sub-ledger.

14. (Previously Presented) The repo basket transaction system of claim 13, further comprising an earmarking unit for marking the at least one allocated specific security to be posted in said sub-ledger but not in said general ledger accounts.

15. (Previously Presented) The repo basket transaction system of claim 14, wherein said earmarking unit first marks the at least one allocated specific security to be transferred from a first market participant's account to an account of a central counterpart, and then marks the at least one allocated specific security to be transferred from said account of a central counterpart to a second market participant's account.

16. (Previously Presented) A settlement system capable of being operated in a repo basket transaction system, connected to receive settlement instructions relating to repo basket transactions and to receive a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities , comprising:

a securities pooling and allocation unit which, in response to settlement instructions for the synthetic security, allocates at least one specific security that meets the security basket definition.

17. (Previously Presented) A computerized repo basket transaction method comprising:

receiving repo quotes from market participants in an electronic trading system by operating computer devices, the repo quotes specifying a repo basket transaction and including a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities;

negotiating a repo transaction in said electronic trading system based on the repo quotes;

generating settlement instructions in a clearing system for the synthetic security based on said negotiating step; and

in response to the settlement instructions, allocating in a settlement system at least one specific security that meets the security basket definition; and

completing in said settlement system the repo transaction by posting said allocated specific securities on sub-ledger and securities and cash accounts.

18. (Cancelled)

19. (Previously Presented) The repo basket transaction method of claim 17, wherein said at least one specific security is allocated based on a security basket definition and predefined rules.

20. (Previously Presented) The repo basket transaction method of claim 19, wherein said predefined rules are standardized general allocation rules.

21. (Previously Presented) The repo basket transaction method of claim 19, further comprising:

storing data indicating said at least one specific security in association with the security basket definition indicating said at least one class of securities,

wherein allocating said at least one specific security based on said predefined rules comprises accessing the stored data.

22. (Original) The repo basket transaction method of claim 21, wherein said data is stored in market participant specific memory regions of a storage, and said association is a market participant specific association.

23. (Cancelled)

24. (Previously Presented) The repo basket transaction method of claim 17, further comprising:

performing a trade margin calculation process based on a risk calculation based on said security basket definition.

25. (Previously Presented) The repo basket transaction method of claim 17, wherein said risk calculation process is adapted to access an specific average risk profile for each class of securities.

26. (Original) The repo basket transaction method of claim 24, further comprising: sending repo confirmation messages from a clearing system to a trading system prior to said calculation.

27. (Previously Presented) The repo basket transaction method of claim 17, further comprising:

determining whether the security basket amount exceeds a predefined threshold; and if so, generating plural settlement instructions each causing an allocation of amounts not exceeding said threshold.

28. (Cancelled)

29. (Previously Presented) The repo basket transaction method of claim 17, further comprising:

creating a sub-ledger independent from general ledger accounts of the market participants; and

wherein said completing step comprises posting the at least one allocated specific security in said sub-ledger.

30. (Previously Presented) The repo basket transaction method of claim 29, further comprising:

marking the at least one allocated specific security to be posted in said sub-ledger but not in said general ledger accounts.

31. (Previously Presented) The repo basket transaction method of claim 30, wherein the marking is adapted to first mark the at least one allocated specific security to be transferred from a first market participant's account to an account of a central counterpart, and then mark the at least one allocated specific security to be transferred from said account of a central counterpart to a second market participant's account.

32. (Previously Presented) A computer readable storage medium storing instructions that, when executed on a computer system, cause the computer system to:

receive repo quotes from market participants, the repo quotes specifying a repo basket transaction and including a security basket definition indicating at least one class of securities defining a synthetic security, said security basket definition not indicating specific securities; and  
in response to settlement instructions based on negotiation of repo quotes, allocate at least one specific security that meets the security basket definition.

33. (Withdrawn) A resource management system for controlling the transfer of groups of resources, comprising:

an input unit for receiving transfer instructions, said transfer instructions specifying a transfer of a group of resources by providing a resource definition indicating at least one class of resources defining a synthetic resource and not specific resources, and at least one condition under which, after the transfer has been completed, a reverse transfer of the same group of resources or another group of resources within the same at least one class of resources has to occur; and

a resource specification unit for, in response to receiving said transfer instructions, allocating specific resources for said transfer that meet the resource definition.

34. (Withdrawn) The resource management system of claim 33, wherein said definition further indicates a point of time at which said transfer has to occur.

35. (Withdrawn) The resource management system of claim 33, wherein said at least one condition comprises a point of time at which said reverse transfer has to occur.

36. (Withdrawn) The resource management system of claims 33, wherein each of said transfer and said reverse transfer are bi-directional transfers comprising a transfer of the respective group of resources in one direction and a transfer of a respective additional resource in the opposite direction.

37. (Withdrawn) The resource management system of claim 36, wherein said definition also indicates the group of resources for said transfer as well as said reverse transfer.

38. (Withdrawn) The resource management system of claim 33, wherein said definition further indicates a quantity of resources, said quantity describing a resource volume of said group of resources.

39. (Cancelled)

40. (Withdrawn) The resource management system of claim 33, wherein said resource specification unit is further adapted to allocate said specific resources based on the resource definition and predefined rules.

41. (Withdrawn) The resource management system of claim 40, wherein said predefined rules specify the manner in which the allocation is dependent on the availability and eligibility of resources.

42. (Withdrawn) The resource management system of claim 40, wherein said resource management system further comprises a storage for storing data indicating said specific resources in association with the resource definition indicating said at least one group of

resources, and said resource specification unit is adapted to access said storage when allocating said specific resources based on said predefined rules.

43. (Withdrawn) The resource management system of claim 42, wherein said resource management system is connectable to at least two client devices, said input unit is arranged for receiving said transfer instructions from said client devices, said storage is arranged for storing said data in client specific memory regions, and said association is a client specific association.

44. (Withdrawn) The resource management system of claim 40, wherein said resource management system is connectable to at least two client devices, said input unit is arranged for receiving said transfer instructions from said client devices, and said predefined rules are standardized general resource management rules.

45. (Withdrawn) The resource management system of claims 33, further comprising: a processing unit for generating messages relating to resource group transfers specified by constituting said definition, wherein said resource specification unit is adapted to allocate said specific resources in response to said messages.

46. (Withdrawn) The resource management system of claim 45, wherein said processing unit is arranged for performing a risk calculation process based on said definition.

47. (Withdrawn) The resource management system of claim 46, wherein said risk calculation process is adapted to access an specific average risk profile for each class of resources.

48. (Withdrawn) The resource management system of claim 46, wherein said processing unit is further arranged for sending transfer confirmation messages to said input unit prior to said calculation.

49. (Withdrawn) The resource management system of claim 45, wherein said processing unit is adapted for determining whether the amount of resources to be allocated exceeds a predefined threshold, and if so, generating plural messages each causing said resource specification unit to allocate amounts of said specific resources not exceeding said threshold.

50. (Withdrawn) The resource management system of claim 33, wherein said resource management system is further capable of controlling the transfer of other resources than resources of said groups of resources,

wherein said resource specification unit stores a first array of resource data to which said other resources are posted after allocation, and

wherein said resource specification unit further stores a second array to which said specific resources are posted after allocation.

51. (Withdrawn) The resource management system of claim 50, further comprising a marking unit for marking the allocated specific resources to be posted in said second array but not in said first array.

52. (Withdrawn) The resource management system of claim 51, wherein said marking unit is adapted to first mark an allocated specific resource to be transferred from an account pertaining to a first client device to a central account, and then mark the allocated specific resource to be transferred from said central account to an account pertaining to a second client device.

53. (Withdrawn) A resource management method of controlling the transfer of groups of resources, comprising:

receiving transfer instructions specifying a transfer of a group of resources by providing a definition indicating at least one class of resources defining a synthetic resource and not specific resources, and at least one condition under which, after the transfer has been completed, a reverse transfer of the same group of resources or another group of resources within the same at least one class of resources has to occur; and

in response to said receiving step, allocating ~~individual~~ specific resources for said transfer that meet definition.

54. (Withdrawn) The resource management method of claim 53, wherein said definition further indicates a point of time at which said transfer has to occur.

55. (Withdrawn) The resource management method of claim 53, wherein said at least one condition comprises a point of time at which said reverse transfer has to occur.

56. (Withdrawn) The resource management method of claims 53, wherein each of said transfer and said reverse transfer are bi-directional transfers comprising a transfer of the respective group of resources in one direction and a transfer of a respective additional resource in the opposite direction.

57. (Withdrawn) The resource management method of claim 56, wherein said definition also indicates the additional resources for said transfer as well as said reverse transfer.

58. (Withdrawn) The resource management method of claim 53, wherein said definition further indicates a quantity of resources, said quantity describing a resource volume of said group of resources.

59. (Cancelled)

60. (Withdrawn) The resource management method of claim 53, wherein said specific resources are allocated based on the resource definition and predefined rules.

61. (Withdrawn) The resource management method of claim 60, wherein said predefined rules specify a manner in which the allocation is dependent on the availability and eligibility of resources.

62. (Withdrawn) The resource management method of claim 60, further comprising:  
storing data indicating said specific resources in association with the resource definition  
indicating said at least one class of resources,  
wherein allocating said specific resources based on said predefined rules comprises  
accessing the stored data.

63. (Withdrawn) The resource management method of claim 62, further comprising:  
receiving said transfer instructions from at least two client devices,  
wherein said data is stored in client specific memory regions of a storage, and said  
association is a client specific association.

64. (Withdrawn) The resource management method of claim 60, further comprising:  
receiving said transfer instructions from at least two client devices,  
wherein said predefined rules are standardized allocation rules or client specific rules.

65. (Withdrawn) The resource management method of claims 53, further comprising:  
generating messages relating to resource group transfers specified by constituting said  
definition,  
wherein said specific resources are allocated in response to said messages.

66. (Withdrawn) The resource management method of claim 65, further comprising:  
performing a risk calculation process based on said definition.

67. (Withdrawn) The resource management method of claim 66, wherein said risk  
calculation process is adapted to access an individual average risk profile for each class of  
resources.

68. (Withdrawn) The resource management method of claim 66, further comprising:  
sending transfer confirmation messages to the unit receiving said transfer instructions,  
prior to said calculation.

69. (Withdrawn) The resource management method of claim 65, further comprising: determining whether the amount of resources to be allocated exceeds a predefined threshold; and

if so, generating plural messages each causing an allocation of amounts of said specific resources not exceeding said threshold.

70. (Withdrawn) The resource management method of claim 53, further comprising: controlling the transfer of other resources than resources of said groups of resources, storing a first array of resource data to which said other resources are posted after allocation, and

storing a second array to which said specific resources are posted after allocation.

71. (Withdrawn) The resource management method of claim 70, further comprising: marking the allocated specific resources to be posted in said second array but not in said first array.

72. (Withdrawn) The resource management method of claim 71, wherein said marking is adapted to first mark an allocated specific resource to be transferred from an account pertaining to a first client device to a central account, and then mark the allocated specific resource to be transferred from said central account to an account pertaining to a second client device.

73. (Withdrawn) A computer readable storage medium storing instructions that, when executed on a computer system, cause the computer system to control the transfer of groups of resources by:

receiving transfer instructions specifying a transfer of a group of resources by providing a resource definition indicating at least one class of resources defining a synthetic resource and not specific resources and at least one condition under which, after the transfer has been completed,

a reverse transfer of the same group of resources or another group of resources within the same at least one class of resources has to occur; and

in response to receiving said transfer instructions, allocating specific resources for said transfer that meet said resource definition.

**X. EVIDENCE APPENDIX**

There is no additional evidence related to this Appeal.

**XI. RELATED PROCEEDINGS APPENDIX**

There are no related proceedings to this Appeal.